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John W Renner
Renner Otto Boisselle & Sklar
1621 Euclid Avenue
19th Floor
Cleveland, OH 44115

EXAMINER	
CRUTCHFIELD, CHRISTOPHER M	

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Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary	Application No.	Applicant(s)	
	10/544,242	LEE ET AL.	
	Examiner	Art Unit	
	Christopher Crutchfield	2619	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE *3* MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *14 May 2008*.

2a)☐ This action is **FINAL**. 2b)☒ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1-8,13-16 21 and 23* is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *1-8,13-16 21 and 23* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☒ The drawing(s) filed on *02 August 2005* is/are: a)☒ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☒ All b)☐ Some * c)☐ None of:

1.☐ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☒ Information Disclosure Statement(s) (PTO/SB/08) Paper No(s)/Mail Date *8/2/2005*.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____.
5) ☐ Notice of Informal Patent Application
6) ☐ Other: _____.

DETAILED ACTION

Claim Rejections - 35 USC § 101

1. 35 U.S.C. 101 reads as follows:

> Whoever invents or discovers any new and useful process, machine, manufacture, or composition of matter, or any new and useful improvement thereof, may obtain a patent therefor, subject to the conditions and requirements of this title.

Claim 21 is rejected under 35 U.S.C. 101 because the claimed invention is directed to non-statutory subject matter. Claims 21 is properly directed to functional descriptive material residing on a computer readable medium. Warmerdam, 33 F.3d at 1361, 31 USPQ2d at 1760, See also MPEP 2106.01. However, the computer readable medium is defined to include an electromagnetic carrier wave (Specification, Paragraph 0092). Electromagnetic carrier waves have no physical substance and therefore do not fall within a category of patentable subject matter recited in 35 USC 101.

Claim Rejections - 35 USC § 103

1. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained tough the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

2. The factual inquiries set forth in *Graham* **v.** *John Deere Co.*, 383 U.S. 1, 148 USPQ 459 (1966), that are applied for establishing a background for determining obviousness under 35 U.S.C. 103(a) are summarized as follows:

> 1. Determining the scope and contents of the prior art.

2. Ascertaining the differences between the prior art and the claims at issue.
3. Resolving the level of ordinary skill in the pertinent art.
4. Considering objective evidence present in the application indicating obviousness or nonobviousness.

3. This application currently names joint inventors. In considering patentability of the claims under 35 U.S.C. 103(a), the examiner presumes that the subject matter of the various claims was commonly owned at the time any inventions covered therein were made absent any evidence to the contrary. Applicant is advised of the obligation under 37 CFR 1.56 to point out the inventor and invention dates of each claim that was not commonly owned at the time a later invention was made in order for the examiner to consider the applicability of 35 U.S.C. 103(c) and potential 35 U.S.C. 102(e), (f) or (g) prior art under 35 U.S.C. 103(a).

4. **Claims 1, 5, 6, and 23** are rejected under 35 U.S.C. 103(a) as being unpatentable over *Toth*, et al. (US Patent No. 5,708,655) in view of *Houh,* (WIPO International Publication No. WO 00/24166) *Vitanen,* (US Pre Grant Publication No. 2002/0128017 A1) and The 3GPP TS 29.060 (GPRS Tunneling Protocol (GTP) across the Gn and Gp Interface, September 2002, The Third Generation Partnership Project, Pages 10 and 17-19).

Regarding claim 1, *Toth* discloses an Internet base station system (Figure 1, Elements 16 and 22) comprising:

a. A first communication unit which transmits data to and receives data from (Figure 1, Element 22) an Internet mobile station (Figure 1, Element 32 and Column 6 line 66 to Column 7, Line 5). (The base station transmits data to and receives data from the Wireless Host/Internet mobile system [Column 6 line 66 to Column 7, Line 5].)

b. A second communication unit (Figure 1, Elements 18 and 38) which transmits data to and receives data from an Internet mobile switching center system (Figure 1, Elements 26 and 46) (Column 6, Lines 38-65). (The serving packet support node/second communications unit [SPSN] [Figure 1, Elements 18 and 38] transmits data to and from the gateway packet switch node [GPSN] [Figure 1, Elements 26 and 46], which connects to the internet and other destination devices [Figure 1, Elements 16 and 54] [Column 7, Lines 18-32].)

c. An Internet home location register system (Column 7, Lines 5-13 – "the wireless host is registered in the home PLMN while roaming").

d. A storage unit (Figure 5, Element 48) which stores at least one or more rental Internet Protocol addresses which are allocable to the Internet mobile station (Figure 5, Element 152 and Column 7, Lines 18-40). (The channel allocation unit/IAS [Figure 1, Element 48] of *Toth* allocates an IP address Wireless Hosts and stores the allocated addresses in the address database [Figure 1, Elements 32 and 52 and Column 7, Lines 18-40].)

e. A channel allocation unit which allocates a communication channel to a sending Internet mobile station when the sending Internet mobile station transmits a call requesting message to the Internet mobile switching center system via the first communication unit or when the Internet mobile switching center system transmits the call requesting message to a receiving Internet mobile station (Column 7, Lines 18-40 and Column 9, Lines 14-25). (The system of *Toth* allocates an IP address/channel to a Wireless Host [Figure 1, Elements 32 and 52] that is inactive for a certain time only once

it again becomes active, [Column 7, Lines 18-40] which can include becoming active to make a conference/two way call [Column 5, Lines 30-32]. In the process of assigning the new IP and the accompanying IP routing context, a new logical channel is established between the Wireless host's radio transceiver and the serving packet switch network [Figure 1, Element 38] [Figure 2, Steps 92-98 and Column 9, Lines 14-25]. Therefore, a channel is allocated by a channel allocation unit when the sending internet mobile station transmits a call requesting message.)

f. An address allocation unit (Figure 1, Elements 28 and 48) which allocates a rental Internet Protocol address to the sending Internet mobile station (Column 7, Lines 18-40) transmits address allocation information comprising the rental Internet Protocol address of the Internet mobile station, to the Internet mobile switching center system (Column 11, Lines 6-18 and Column 7, Lines 63-67) and withdraws the rental Internet Protocol address from the sending Internet mobile station when mobile communication between the sending Internet mobile station and the receiving Internet mobile station *times out* (Column 9, Lines 33-44) and informs the Internet mobile switching center system of the withdrawal of the rental IP address (Column 9, Line 55 to Colum 10, Line 6). (The IAS/address allocation unit [Figure 1, Element 48] informs the GPSN/second communication unit [Figure 1, Element 46] of the allocated temporary IP address [Column 11, Lines 6-18 and Column 7, Lines 63-67]. Furthermore, the Wireless Host/Internet mobile station detects when data has not been transmitted for a timeout period [Column 9, Lines 33-44] and when the timeout threshold has been exceeded, the Wireless Host/Internet mobile station sends a message to the SGSN, which forewords it on to the IAS as a NEI release request. The IAS/address allocating unit then de-

allocates the address and sends a notice of de-allocation by means of a NEI release response to the SGSN/Internet mobile switching center Column 9, Line 55 to Colum 10, Line 6]. Therefore, the address allocation unit/IAS withdraws the IP allocation after a timeout period and signals the withdrawal to the SGSN/Internet mobile switching center.)

g. A call controller which receives an Internet Protocol address of the receiving Internet mobile station from the Internet mobile switching center system, transmits the Internet Protocol address of the receiving Internet mobile station to the sending Internet mobile station, and relays speech Internet Protocol packets between the sending Internet mobile station and the receiving Internet mobile station via the communication channel of the sending Internet mobile station (Column 10, Lines 15-25 and Figure 1, Elements 16, 52, 54 and 132). (The call controller [Figure 1, Element 14] receives a packet from wireless host A/sending internet mobile station indicating its temporary IP address. The call controller, via the GPSN transmits the packet to the receiving internet mobile station/Host A. A standard communications session, which includes a conference call [Column 5, Lines 30-32] may then be initiated between the two stations with communications traveling through the communications channel of the sending internet mobile station/wireless host A [Figure 1, Element 134].)

Toth fails a system wherein the address allocation unit withdrawals the rental Internet Protocol address from the sending Internet mobile station when mobile communication between the sending Internet mobile station and the receiving Internet mobile station ends. In the same field of endeavor, *Houh* discloses a system wherein the address allocation unit withdrawals the rental Internet Protocol address from the sending Internet mobile station when mobile

communication between the sending Internet mobile station and the receiving Internet mobile station ends, and informs the Internet mobile switching center system of the withdrawal of the rental IP address (Page 15, Bottom Paragraph). (The NCP identifies when a device wishes to initiate a call to a device on another network, at that time, a layer 3 address is allocated to the device for the duration of the call [Page 15, Bottom Paragraph]. Once the call is complete, the IP assignment is withdrawn [Page 15, Bottom Paragraph].)

Therefore, since *Houh* suggests call duration IP assignments, it would have been obvious to a person of ordinary skill in the art a the time of the invention to implement call duration IP assignments as taught by *Houh* into the teachings of *Toth*. The call duration IP assignments of *Houh* can be combined with the system of *Toth* by having the Internet mobile station/wireless host of *Toth* signal to the IAS to revoke an IP assignment when a call is completed. The motive to combine is provided by *Houh* and is to preserve limited IP addresses by leasing them only when they are necessary to send or receive communications (Houh Pages 6-7).

Toth discloses the use of an internet home location register system (Column 7, Lines 5-13) and the use of "conventional location updating procedures" (Column 8, Lines 12-15). Toth fails to disclose a second communication unit which transmits data to and receives data from an Internet home location register system. In the same field of endeavor, *Virtanen* discloses a second communication unit which transmits data to and receives data from an Internet home location register system (Paragraph 0021). (The SGSN checks and updates the user status in the home location register before allowing access to the packet data network [Paragraph 0021].)

Therefore, since *Virtanen* discloses the use of home location register (HLR) updates, it would have been obvious to a person of ordinary skill in the art at the time of the invention to implement the HLR updates of *Vitanen* into the teachings of *Toth*. The HLR updates of *Vitanen*

can be combined with the teachings of *Toth* by having the SPSN implement HLR updating as taught by *Vitanen* and then transmit the update messages via the GPSN/second communications unit to the home location register. The motive to combine is provided by *Virtanen* and is to allow for checking the authorization of a user before allowing them to utilize a service (Paragraph 0021).

Toth discloses a system further comprising a tunnel between the SPSN/first communications unit and the GPSN/second communications unit (Column 8, lines 1-11) and an address allocation unit which transmits the rental Internet Protocol address of the Internet mobile station to the Internet mobile switching center system (Column 11, Lines 6-18 and Column 7, Lines 63-6) (See (f), Supra). *Toth* fails to disclose a system comprising a *first communications unit* which stores its own IP address and transmits address allocation information comprising identification information and the rental Internet Protocol address of the Internet mobile station, and *the Internet Protocol address of the first communications unit* to the Internet mobile switching center system. In the same field of endeavor, the 3GPP TS 29.060 discloses a *first communications unit* which stores its own IP address and transmits address allocation information comprising identification information and the rental Internet Protocol address of the Internet mobile station, and *the Internet Protocol address of the first communications unit* to the Internet mobile switching center system (Page 10, Figure 1, and Section 4 and Pages 17-19 Section 7.3.1). (The 3GPP GPRS Tunneling Protocol (GTP) establishes a tunnel between the SGSN and the GGSN [Page 10, Figure 1 and Section 4]. The tunnel is established by using a create PDP context. The create PDP context is sent by the SGSN/First communications unit to the GGSN/Second communications unit. The create PDP context message includes the data IP address of the SGSN, the IP address of the mobile station, and the MSISDN/identification information of the mobile station [Page 17 Section 7.3.1].

Furthermore, the connection operates using IP and IP addresses [Page 17 Section 7.3.1 – First Paragraph in 7.3.1]. Therefore, since the connection uses IP addresses, it is inherent that the first communications unit posses and stores its own IP address. Furthermore, the first communications unit also transmits a message to the second communications unit including the IP address of the mobile station/Internet mobile station and the IP address of the SGSN/First communications unit/SPSN.)

Therefore, since the 3GPP suggests the use of GTP to connect packet gateways to service nodes, it would have been obvious to a person of ordinary skill in the art to implement GTP as taught by the 3GPP into the teachings of *Toth*. The GTP as taught by the 3GPP can be combined with the system of *Toth* by implementing tunneling between the SPSN and GPSN of *Toth* as taught by *Toth* and using the GTP as taught by the 3GPP. The motive to combine is to use a common and widely recognized GTP to tunnel data, thereby lowering costs by using common hardware and likewise increasing device interoperability.

Toth fails to disclose that the first communications unit and the storage unit can comprise a single device such that the Internet Protocol address of the storage unit may be the same as the IP address of the first communication unit. In the same field of endeavor, *Houh* discloses that the first communications unit and the storage unit can comprise a single device such that the Internet Protocol address of the storage unit may be the same as the IP address of the first communication unit (Figure 1, Element 20 and Page 15, Bottom Paragraph).

Therefore, since *Houh* discloses a combined address storage unit, it would have been obvious to a person of ordinary skill in the art a the time of the invention to implement the combined address storage unit of *Houh* into the teachings of *Toth*. The combined address storage unit of *Houh* can be combined with the system of *Toth* by integrating the first communications unit/SPSN of *Toth* with the address storage unit/IAS of *Toth* as disclosed by

Houh to form a single IP device such that when the system of *Toth* transmits address allocation information comprising the Internet Protocol address of the first communication unit to the Internet mobile switching center system the system likewise transmits the IP address of the storage unit as well. The motive to combine is to form a single unit from two, thereby reducing costs and decreasing size.

Regarding claim 5 and 23, *Toth* discloses that a call channel request is issued by means of a PDP activation context when a mobile station seeks to make a conference call (Column 7, Lines 18-40 and Column 9, Lines 14-25). (The system of *Toth* allocates an IP address/channel to a Wireless Host [Figure 1, Elements 32 and 52] that is inactive for a certain time only once it again becomes active, [Column 7, Lines 18-40] which can include becoming active to make a conference/two way call [Column 5, Lines 30-32].

Toth fails to disclose a system wherein the call requesting message comprises identification information of the sending Internet mobile station and identification information of the receiving Internet mobile station and the identification information of the Internet mobile station comprises at least one of a phone number allocated to the Internet mobile station and an electronic serial number allocated to the Internet mobile station. In the same field of endeavor, *Houh* discloses a system wherein the call requesting message comprises identification information of the sending Internet mobile station and identification information of the receiving Internet mobile station and the identification information of the Internet mobile station comprises at least one of a phone number allocated to the Internet mobile station and an electronic serial number allocated to the Internet mobile station (The call requesting message is a layer 2 packet consisting of the telephone number of the receiving/called internet mobile station [Pages 9-10].)

Therefore, since *Houh* discloses the use of identification information in call requests, it would have been obvious to a person of ordinary skill in the art to implement the identification

information of *Houh* into the system of *Toth*. The identification information of *Houh* can be combined with system of *Toth* by assigning a MAC address to each internet mobile station in *Toth* and requesting a call connection using the phone number of the receiving internet mobile station and the MAC/serial number of the sending internet mobile station. The motive to combine is provided by *Houh* and is to provide an identifier to locate the receiving internet station/called end point when its IP address is unassigned (Page 19).

Toth fails to disclose a system wherein the call requesting message comprises identification information of the sending Internet mobile station. In the same field of endeavor, the 3GPP TS 29.060 discloses a system wherein the call requesting message comprises identification information of the sending Internet mobile station (Pages 17-19, Section 7.3.1). (The 3GPP demonstrates that in activating a PDP context, the MSISDN/Phone number [Page 19, Table 5] of the internet mobile station is sent to the SGSN/Second communication unit [Pages 17-19, Section 7.3.1].)

Therefore, since the 3GPP suggests the use of GTP to connect packet gateways to service nodes, it would have been obvious to a person of ordinary skill in the art to implement GTP as taught by the 3GPP into the teachings of *Toth*. The GTP as taught by the 3GPP can be combined with the system of *Toth* by implementing tunneling between the SPSN and GPSN of *Toth* as taught by *Toth* and using the GTP as taught by the 3GPP based upon the call requesting message of the internet mobile station as taught by *Toth*. The motive to combine is to use a common and widely recognized GTP to tunnel data and establish connections, thereby lowering costs by using common hardware and likewise increasing device interoperability.

Regarding claim 6, *Toth* fails to disclose the identification information of the Internet mobile station comprises at least one of a phone number allocated to the Internet mobile station and an electronic serial number allocated to the Internet mobile station. In the same field of

endeavor, the 3GPP discloses the identification information of the Internet mobile station comprises at least one of a phone number allocated to the Internet mobile station and an electronic serial number allocated to the Internet mobile station (Page 10, Figure 1, and Section 4 and Pages 17-19, Section 7.3.1). (The 3GPP GPRS Tunneling Protocol (GTP) establishes a tunnel between the SGSN and the GGSN [Page 10, Figure 1 and Section 4]. The tunnel is established by using a create PDP context. The create PDP context is sent by the SGSN/First communications unit to the GGSN/Second communications unit. The create PDP context message includes the data IP address of the SGSN, the IP address of the mobile station, and the MSISDN/identification information of the mobile station [Page 17 Section 7.3.1]. Furthermore, the connection operates using IP and IP addresses [Page 17 Section 7.3.1 – First Paragraph in 7.3.1]. Therefore, since the connection uses IP addresses, it is inherent that the first communications unit posses and stores its own IP address. Furthermore, the first communications unit also transmits a message to the second communications unit including the IP address of the mobile station/Internet mobile station and the IP address of the SGSN/First communications unit/SPSN.)

Therefore, since the 3GPP suggests the use of GTP to connect packet gateways to service nodes, it would have been obvious to a person of ordinary skill in the art to implement GTP as taught by the 3GPP into the teachings of *Toth*. The GTP as taught by the 3GPP can be combined with the system of *Toth* by implementing tunneling between the SPSN and GPSN of *Toth* as taught by *Toth* and using the GTP as taught by the 3GPP. The motive to combine is to use a common and widely recognized GTP to tunnel data, thereby lowering costs by using common hardware and likewise increasing device interoperability.

5. **Claims 2-4 and 8** are rejected under 35 U.S.C. 103(a) as being unpatentable over *Toth*, et al. (US Patent No. 5,708,655) *Houh,* et al., (WIPO International Publication No. WO 00/24166) *Vitanen,* et al., (US Pre Grant Publication No. 2002/0128017 A1) and The 3GPP TS 29.060 (GPRS Tunneling Protocol (GTP) across the Gn and Gp Interface, September 2002, The Third Generation Partnership Project, Pages 10 and 17-19) as applied to claim 1 above, and further in view of Chu (Us Pre Grant Publication No. 2007/0286165 A1) and Mobility Support in IPv6 (David Johnson, Mobility Support in IPv6, 13 June 1996, Internet Engineering Task Force, Pages 26-27).

Regarding claims 2 and 3, *Toth* discloses a system wherein the address allocation unit withdraws the rental Internet Protocol address from the Internet mobile station and informs the Internet mobile switching center system of the withdrawal of the rental Internet Protocol address from the Internet mobile station (Column 9, Line 55 to Colum 10, Line 6). (The Wireless Host/Internet mobile station detects when data has not been transmitted for a timeout period [Column 9, Lines 33-44]. When the timeout threshold has been exceeded, the Wireless Host/Internet mobile station sends a message to the SGSN, which forewords it on to the IAS as a NEI release request. The IAS/address allocating unit then de-allocates the address and sends a notice of de-allocation by means of a NEI release response to the SGSN/Internet mobile switching center [Column 9, Line 55 to Colum 10, Line 6]. Therefore, the address allocation unit/IAS withdraws the IP allocation after a timeout period and signals the withdrawal to the SGSN/Internet mobile switching center.)

Toth fails to disclose a system wherein the call controller performs a handoff process for the Internet mobile station based on a received request for a handoff from the mobile station and instructs the channel allocation unit to withdraw the communication channel to disconnect a

call when an adjacent Internet base station server takes over a function of managing the Internet mobile station, the channel allocation unit withdraws the communication channel from the Internet mobile station during the handoff for the Internet mobile station. In the same field of endeavor, *Chu* discloses an internet base station system wherein the call controller performs a handoff process for the Internet mobile station and instructs the channel allocation unit to withdraw the communication channel to disconnect a call when an adjacent Internet base station server takes over a function of managing the Internet mobile station, the channel allocation unit withdraws the communication channel from the Internet mobile station during the handoff for the Internet mobile station (Paragraph 0044). (The mobile station reports the signal strength to the base station/SRP. A report where the signal strength is below a specific threshold acts as a request for the SRP to hand over the connection.)

Therefore, since *Chu* suggests the use of handovers, it would have been obvious to a person of ordinary skill in the art at the time of the invention to implement the handovers of *Chu* into the teachings of *Toth*. The handovers of *Chu* can me combined with the system of *Toth* by having the call controller of *Toth* hand over connections and terminating the channels associated with the old connections as taught by *Chu*. The motive to combine is to allow the mobile user to roam from one base station to another.

Toth fails to disclose the call controller performs a handoff process for the Internet mobile station and instructs the address allocation unit to withdrawal the rental Internet Protocol address from the Internet mobile station to disconnect a call when an adjacent Internet base station server takes over a function of managing the Internet mobile station and the address allocation unit withdraws the rental Internet Protocol address from the Internet mobile station during the handoff for the Internet mobile station. In the same field of endeavor, Mobility Support in IPv6 discloses the address allocation unit withdraws the rental Internet Protocol address from

the Internet mobile station during the handoff for the Internet mobile station (Pages 26-27, Section 6.8). (Mobility Support in IPv6 discloses that in a soft handoff, a new IP address is acquired for the mobile terminal before the session is handed over. Furthermore, the mobile terminal may either terminate the previous COA immediately or retain the COA to receive any additional packets that are in flight during the handover. Therefore, Mobility Support in IPv6 discloses terminating an old IP address upon the handover of a mobile station).

Therefore, since Mobility Support in IPv6 suggests the release of old IP addresses, it would have been obvious to a person of ordinary skill in the art at the time of the invention to implement IP address termination as taught by Mobility Support in IPv6 into the teachings of *Toth*. IP address termination as taught by Mobility Support in IPv6can be combined with the system of *Toth* by implementing IPv6, obtaining a new IP address upon handover and sending a binding update to the receiving terminal/called wireless host to update the address to use to communicate with the calling wireless host as taught by Mobility Support in IPv6. The motive to combine is to eliminate triangular routing and increase the efficiency of transmission from the corresponding node/receiving internet mobile station by routing packets directly to the new base station.

Regarding claim 4, *Toth* discloses the call controller instructs the channel allocation unit and the address allocation unit, respectively, to withdraw the communication channel and the rental Internet Protocol address when a channel is terminated (Column 9, Lines 27-53, See also Claim 1).

Toth fails to disclose an internet base station system wherein the call controller requests the Internet mobile switching center system for the handoff when an intensity of a signal received from the Internet mobile station is lower than a predetermined reference intensity and the call controller instructs the channel allocation unit to withdraw the communication channel

when the Internet mobile switching center system selects one among a plurality of adjacent Internet mobile station systems to manage the Internet mobile station so as to complete the handoff and the call controller instructs the channel allocation unit to withdraw the communication channel when the Internet mobile switching center system selects one among a plurality of adjacent Internet mobile station systems to manage the Internet mobile station so as to complete the handoff. In the same field of endeavor, *Chu* discloses an internet base station system wherein the call controller requests the Internet mobile switching center system for the handoff when an intensity of a signal received from the Internet mobile station is lower than a predetermined reference intensity and the call controller instructs the channel allocation unit to withdraw the communication channel when the Internet mobile switching center system selects one among a plurality of adjacent Internet mobile station systems to manage the Internet mobile station so as to complete the handoff and the call controller instructs the channel allocation unit to withdraw the communication channel when the Internet mobile switching center system selects one among a plurality of adjacent Internet mobile station systems to manage the Internet mobile station so as to complete the handoff (Paragraph 0044). (The mobile station sends connection quality information to the SRP/call controller. When the quality falls below a threshold, the SRP/call controller signals a handoff with a list of candidates to the NSP/Internet mobile switching center, which selects a candidate and initiates the handoff [Paragraph 0044]. Once the handoff is complete, the channel connection to the old base station is terminated [Paragraph 0044].)

Therefore, since *Chu* suggests the use of handovers, it would have been obvious to a person of ordinary skill in the art at the time of the invention to implement the handovers of *Chu* into the teachings of *Toth*. The handovers of *Chu* can me combined with the system of *Toth* by having the call controller of *Toth* hand over connections and terminating the channels

associated with the old connections as taught by *Chu*. The motive to combine is to allow the mobile user to roam from one base station to another.

Toth fails to disclose a system wherein the call controller signals to the address allocation unit to withdrawal the rental Internet Protocol address so as to complete the handoff. In the same field of endeavor, Mobility Support in IPv6 discloses a system wherein the call controller the address allocation unit to withdrawal the rental Internet Protocol address so as to complete the handoff. (Pages 26-27, Section 6.8). (Mobility Support in IPv6 discloses that in a soft handoff, a new IP address is acquired for the mobile terminal before the session is handed over. Furthermore, the mobile terminal may either terminate the previous COA immediately or retain the COA to receive any additional packets that are in flight during the handover. Therefore, Mobility Support in IPv6 discloses terminating an old IP address upon the handover of a mobile station).

Therefore, since Mobility Support in IPv6 suggests the release of old IP addresses, it would have been obvious to a person of ordinary skill in the art a the time of the invention to implement IP address termination as taught by Mobility Support in IPv6 into the teachings of *Toth*. IP address termination as taught by Mobility Support in IPv6 can be combined with the system of *Toth* by implementing IPv6, obtaining a new IP address upon handover and sending a binding update to the receiving terminal/called wireless host to update the address to use to communicate with the calling wireless host as taught by Mobility Support in IPv6. The motive to combine is to eliminate triangular routing and increase the efficiency of transmission from the corresponding node/receiving internet mobile station by routing packets directly to the new base station.

Regarding claim 8, *Toth* discloses an internet base station system wherein to *establish communications*, the call controller requests the Internet mobile switching center system to

allocate the communication channel and the rental Internet Protocol address to the receiving Internet mobile station based on the identification information of the *selected* Internet mobile station (Column 7, Lines 18-40 and Column 9, Lines 14-25). (The system of *Toth* allocates an IP address/channel to a Wireless Host [Figure 1, Elements 32 and 52] that is inactive for a certain time only once it again becomes active, [Column 7, Lines 18-40] which can include becoming active for a conference/two way call [Column 5, Lines 30-32]. In the process of assigning the new IP and the accompanying IP routing context, a new logical channel is established between the Wireless host's radio transceiver and the serving packet switch network [Figure 1, Element 38] [Figure 2, Steps 92-98 and Column 9, Lines 14-25].)

Toth fails to disclose a system wherein the system establishes communications based on the identification information of the receiving Internet mobile station and wherein when the call controller receives the call requesting message from the sending Internet mobile station, the call controller requests allocates the rental Internet Protocol address to the receiving Internet mobile station based on the identification information of the receiving Internet mobile station, and transmits the rental Internet Protocol address of the receiving Internet mobile station to the sending Internet mobile station. In the same field of endeavor, *Houh* discloses a system wherein the system establishes communications based on the identification information of the receiving Internet mobile station and wherein when the call controller (Figure 1, Element 20') receives the call requesting message from the sending Internet mobile station, (Figure 1, Element 20') the call controller requests allocates the rental Internet Protocol address to the receiving Internet mobile station based on the identification information of the receiving Internet mobile station, and transmits the rental Internet Protocol address of the receiving Internet mobile station to the sending Internet mobile station (Pages 19-20). (The call controller/NCP [Figure 1, Element 20'] of the called NCP/call controller receives a request from the internet mobile station to

communicate with the remote internet mobile station [Figure 1, Element 15'] [Page 29, Point 3]. The call controller then allocates a temporary IP address to the destination phone device/receiving internet mobile station based on the station identifying information and passes the address of the destination phone device/receiving internet mobile station to the sending internet mobile station's call controller/NCP [figure 1, Element 20] [Page 20, Point 5] which passes it to the sending internet mobile station [Page 15, Bottom Paragraph].)

Therefore, since *Houh* suggests the establishment of communications and the assignment of an IP address based on the receipt of the identifying information of an internet mobile station selected to receive a call, it would have been obvious to a person of ordinary skill in the art to implement call reception as taught by *Houh* into the teachings of *Toth*. The call reception of *Houh* can be combined with the system of *Toth* by triggering the channel allocation of *Toth* to select a receiving internet mobile station based on its identifying information and to establish communications with that mobile station as taught by *Houh*. The call controller of *Toth* can then implement reporting of the allocated IP address to the sending internet mobiles station as taught by *Houh*. The motive to combine is provided by *Houh* and is to allow an internet mobile system to receive calls when it has not yet been allocated an IP address (Page 19).

6. **Claim 7** is rejected under 35 U.S.C. 103(a) as being unpatentable over *Toth*, et al., (US Patent No. 5,708,655) *Houh,*et al., (WIPO International Publication No. WO 00/24166) *Vitanen,* et al., (US Pre Grant Publication No. 2002/0128017 A1) and The 3GPP TS 29.060 (GPRS Tunneling Protocol (GTP) across the Gn and Gp Interface, September 2002, The Third Generation Partnership Project, Pages 10 and 17-19) as applied to claim 1 above, and further in view of Karino (US Pre Grant Publication No. 2003/0072315 A1).

Regarding claim 7, *Toth* discloses a system further comprising an Internet base station system wherein the address allocation unit allocates the rental Internet Protocol address to the Internet mobile station, and stores the rental Internet Protocol address of the Internet mobile station in the storage (Figure 5, Element 152 and Column 7, Lines 18-40). (The channel allocation unit/IAS [Figure 1, Element 48] of *Toth* allocates an IP address Wireless Hosts and stores the allocated addresses in the address database [Figure 1, Elements 32 and 52 and Column 7, Lines 18-40].)

Toth fails to disclose the address allocation unit stores the rental Internet Protocol address and the identification information of the Internet mobile station in the storage to link the rental Internet Protocol address with the identification information. In the same field of endeavor, *Karino* discloses the address allocation unit stores the rental Internet Protocol address and the identification information of the Internet mobile station in the storage to link the rental Internet Protocol address with the identification information (Paragraph s 0014-0015). (The DHCP server of *Karino* allocated IP address and stores the correspondence between the allocated IP address and the telephone number/Identification information [Also called the MSISDN in a GSM/UMTS network] of the mobile station.)

Therefore, since *Karino* discloses allocating and storing the IP and number of an internet mobile station, it would have been obvious to a person of ordinary skill in the art at the time of the invention to implement identifier storage of *Karino* into the teachings of *Toth*. The identifier storage of *Karino* can be combined with the system of *Toth* by having the address allocator and associated storage unit allocate and store the IP address and telephone number of the internet mobile station. The motive to combine is provided by *Karing* and is to create a repository for IP addresses and phone numbers, which allows updates of a mobile stations current dynamic IP address to associated receiving internet mobile stations (Paragraphs 0006-0008).

7. **Claims 13, 15 and 21** are rejected under 35 U.S.C. 103(a) as being unpatentable over Houh (WIPO International Publication No. WO 00/24166) in view of *Toth*, et al., (US Patent No. 5,708,655) *Vitanen,* et al., (US Pre Grant Publication No. 2002/0128017 A1) The 3GPP TS 29.060, (GPRS Tunneling Protocol (GTP) across the Gn and Gp Interface, September 2002, The Third Generation Partnership Project, Pages 10 and 17-19) and Mobility Support in IPv6 (David Johnson, Mobility Support in IPv6, 13 June 1996, Internet Engineering Task Force, Pages 26-27).

Regarding claim 13, *Houh* discloses a method of providing a wireless Internet mobile communication service, (Page 12) comprising:

a. When a call requesting message is received from a first Internet mobile station or the call requesting message is transmitted from an Internet mobile switching center system to the first Internet mobile station, allocating a communication *address* to the first Internet mobile station (Pages 19-20). (The Phone device/first internet mobile station [Figure 1, Elements 15 and 15'] is allocated a rental IP address both when it is called by another phone [Page 20, Point 5].)

b. Allocating a rental Internet Protocol address to the first and second Internet mobile stations (Page 20, Points 4 and 5). (The Phone device/first internet mobile station [Figure 1, Elements 15 and 15'] is allocated a rental IP address both when it is called by another phone [Page 20, Point 5] and when it calls another phone [Page 20, Point 4] as

is likewise the associated second internet mobile station/phone device [Page 20, Points 4 and 5].)

d. Transmitting speech Internet Protocol packets between the first Internet mobile station and the second Internet mobile station via a communication channel of the first Internet mobile station (Page 8 and Figure 1, Connection between Elements 15 and 20).

e. When speech communication between the first Internet mobile station and the second Internet mobile station ends, withdrawing the rental Internet Protocol address from the first Internet mobile station and/or the second Internet mobile station (Page 8). (The NCP [Figure 1, Element 20] withdrawals a rental IP address once communications between the stations is complete. This includes the NCP corresponding to the calling station/first internet mobile station [Figure 1, Element 20] and the NCP corresponding to the called station/second internet mobile station [Figure 1, Element 20' [Pages 8 and 19-20].)

Houh fails to disclose a method further comprising allocating a communications *channel* at the same time a communications address is allocated thereby creating a method whereby when a call requesting message is received from a first Internet mobile station or the call requesting message is transmitted from an Internet mobile switching center system to the first Internet mobile station the system allocates a communication channel to the first Internet mobile station and transmits speech Internet Protocol packets between the first Internet mobile station and the second Internet mobile station via a communication *channel* allocated to the first Internet mobile station. In the same field of endeavor, *Toth* discloses a method further comprising allocating a communications *channel* at the same time a communications address is

allocated thereby creating a method whereby when a call requesting message is received from a first Internet mobile station or the call requesting message is transmitted from an Internet mobile switching center system to the first Internet mobile station the system allocates a communication channel to the first Internet mobile station and transmits speech Internet Protocol packets between the first Internet mobile station and the second Internet mobile station via a communication *channel* allocated to the first Internet mobile station (Column 8, Line 40 to Column 9, Line 26). (The system of *Toth* allocates an IP address and channel simultaneously to a Wireless Host [Figure 1, Elements 32 and 52] upon request. [i.e. in the process of assigning the new IP and the accompanying IP routing context, a new logical channel is established between the Wireless host's radio transceiver and the serving packet switch network] [Figure 1, Element 38] [Figure 2, Steps 92-98 and Column 9, Lines 14-25]. Packets, including speech packets are transmitted over the established channel [Column 5, Lines 29-33 and Column 9, lines 27-32].)

Therefore, since *Toth* suggests the allocation of a wireless channel for communication between wireless devices, it would have been obvious to a person of ordinary skill in the art at the time of the invention to implement the wireless channel allocation of *Toth* into the teachings of *Houh*. The wireless channel allocation of *Toth* can be combined with the system *Houh* by allocating both an IP address and a wireless channel to the first internet mobile station as taught by *Toth* when the system detects an incoming or outgoing call by the method of *Houh*. The motive to combine is to reduce the usage of both cellular channels and IP addresses so as to conserve system resources by only allocating a channel and an IP address when communications are ongoing.

As stated above, *Houh* discloses a method comprising allocating a rental Internet Protocol address to the first and second Internet mobile stations (Page 20, Points 4 and 5).

However, *Houh* fails to disclose fails to disclose a method further comprising transmitting address allocation information comprising identification information and the rental Internet Protocol address of the first Internet mobile station upon address allocation to the first mobile station, and an Internet Protocol address and identification information of a second Internet mobile station which is a corresponding Internet mobile station of the first Internet mobile station, upon address allocation of the second mobile station, to the Internet mobile switching center system. In the same field of endeavor, *Toth* discloses a method further comprising transmitting address allocation information comprising identification information and the rental Internet Protocol address of the first Internet mobile station, and an Internet Protocol address and identification information of a second Internet mobile station which is a corresponding Internet mobile station of the first Internet mobile station to the Internet mobile switching center system (Column 11, Lines 6-18 and Column 7, Lines 63-67). (The IAS/address allocation unit [Figure 1, Element 48] informs the GPSN/second communication unit [Figure 1, Element 46] of the allocated temporary IP address [Column 11, Lines 6-18 and Column 7, Lines 63-67]. The system of *Toth* also includes multiple wireless hosts operating in the same manner [Figure 1, Elements 32 and 52] which communicate with the base station and associated SPSN/GPSN in the same manner.

Therefore, since Toth suggests the transmission of address information to the internet mobile switching center, it would have been obvious to a person of ordinary skill in the art at the time of the invention to implement the address allocation of *Toth* into the teachings of *Houh*. The address allocation of *Toth* can be combined with the system *Houh* by transmitting the newly acquired IP addresses of the first and second internet mobile stations to the Level 3 device of *Houh*, which can act as the GPSN/Internet mobile switching center. The Internet mobile switching center/GPSN may then establish a tunnel between the GPSN and the wireless host to

allow the tunneled flow of traffic through the network, as taught by *Toth* (*Toth*, Column 7, Lines 6-32). The motive to combine is to alert the Internet Mobile Switching Center of the previously unallocated IP addresses of the Internet Mobile Stations, thereby increasing efficiency by allowing routing of packets to the nodes immediately after allocation.

Houh fails to disclose transmitting address allocation information comprising identification information the first Internet mobile station and identification information of a second Internet mobile station to the Internet mobile switching center system. In the same field of endeavor, the 3GPP TS 29.060 discloses transmitting address allocation information comprising identification information the first Internet mobile station and identification information of a second Internet mobile station to the Internet mobile switching center system (Page 10, Figure 1, and Section 4 and Pages 17-19, Section 7.3.1). (The 3GPP GPRS Tunneling Protocol (GTP) establishes a tunnel between the SGSN and the GGSN [Page 10, Figure 1 and Section 4]. The tunnel is established by using a create PDP context. The create PDP context is sent by the SGSN/First communications unit to the GGSN/Second communications unit. The create PDP context message includes the data IP address of the SGSN, the IP address of the mobile station, and the MSISDN/identification information of the mobile station [Page 17 Section 7.3.1].)

Therefore, since the 3GPP suggests the use of GTP to connect internet packet gateways to internet mobile stations, it would have been obvious to a person of ordinary skill in the art to implement GTP as taught by the 3GPP into the teachings of *Houh*. The GTP as taught by the 3GPP can be combined with the system of *Toth* by implementing tunneling between the NCP and the Level 3 device as taught by *Hough* as modified by *Toth* (See, Supra) and forming the tunnel according to the GTP specification as taught by the 3GPP. The motive to combine is

to use a common and widely recognized GTP to tunnel data, thereby lowering costs by using common hardware and likewise increasing device interoperability.

Houh fails to disclose when a handoff for the first Internet mobile station and/or the second Internet mobile station is performed, withdrawing the rental Internet Protocol address from the first Internet mobile station and/or the second Internet mobile station and informing the Internet mobile switching center system of the withdrawal of the rental IP address from the first Internet mobile station and/or the second Internet mobile station. In the same field of endeavor, Mobility Support in IPv6 discloses when a handoff for the first Internet mobile station and/or the second Internet mobile station is performed, withdrawing the rental Internet Protocol address from the first Internet mobile station and/or the second Internet mobile station and informing the Internet mobile switching center system of the withdrawal of the rental IP address from the first Internet mobile station and/or the second Internet mobile station (Pages 26-27, Section 6.8). (Mobility Support in IPv6 discloses that in a soft handoff, a new IP address is acquired for the mobile terminal before the session is handed over. Furthermore, the mobile terminal may either terminate the previous COA immediately or retain the COA to receive any additional packets that are in flight during the handover. Therefore, Mobility Support in IPv6 discloses terminating an old IP address upon the handover of a mobile station).

Therefore, since Mobility Support in IPv6 suggests the release of old IP addresses, it would have been obvious to a person of ordinary skill in the art a the time of the invention to implement IP address termination as taught by Mobility Support in IPv6 into the teachings of *Houh*. IP address termination as taught by Mobility Support in IPv6can be combined with the system of *Houh* by implementing IPv6, obtaining a new IP address upon handover and sending a binding update to the receiving terminal/called wireless host to update the address to use to communicate with the calling wireless host as taught by Mobility Support in IPv6. The motive to

combine is to eliminate triangular routing and increase the efficiency of transmission from the corresponding node/receiving internet mobile station by routing packets directly to the new base station.

Regarding claim 15, *Houh* as modified by *Toth, Vitanen The* 3GPP and Mobility Support in IPv6 discloses the identification information of the Internet mobile station comprises at least one of a phone number and an electric serial number of the Internet mobile station (See claim 13, Supra).

Regarding claim 21, *Houh* discloses a computer-readable recording medium on which a program is recorded to execute the method of claim 13 in a computer (Figure 1, Element 22). (It is inherent that a microprocessor stores the program to be executed in a computer readable medium).

8. **Claim 14** is rejected under 35 U.S.C. 103(a) as being unpatentable over Houh (WIPO International Publication No. WO 00/24166) in view of *Toth*, et al., (US Patent No. 5,708,655) *Vitanen,* et al., (US Pre Grant Publication No. 2002/0128017 A1) The 3GPP TS 29.060, (GPRS Tunneling Protocol (GTP) across the Gn and Gp Interface, September 2002, The Third Generation Partnership Project, Pages 10 and 17-19) and Mobility Support in IPv6 (David Johnson, Mobility Support in IPv6, 13 June 1996, Internet Engineering Task Force, Pages 26-27) as applied to claim 13 above, and further in view of *Chu*, et al. (US Pre Grant Publication No. 2007/0286165)..

Regarding claim 14, *Houh* discloses upon termination of communications withdrawing the communication channel and the rental Internet Protocol address from the Internet mobile station (See Claim 13, Supra). *Houh* fails to disclose informing the Internet mobile switching

center system of the withdrawal of the rental IP address from the Internet mobile station. In the same field of endeavor, *Toth* discloses informing the Internet mobile switching center system of the withdrawal of the rental IP address from the Internet mobile station (Column 9, Line 55 to Colum 10, Line 6). (When the Wireless Host/Internet mobile station terminates a session, the Wireless Host/Internet mobile station sends a message to the SGSN, which forewords it on to the IAS as a NEI release request. The IAS/address allocating unit then de-allocates the address and sends a notice of de-allocation by means of a NEI release response to the SGSN/Internet mobile switching center Column 9, Line 55 to Colum 10, Line 6].)

Therefore, since *Toth* suggests the use of IP withdrawal notifications, it would have been obvious to a person of ordinary skill in the art at the time of the invention to implement the IP withdrawal notifications of *Toth* into the teachings of *Houh*. The IP withdrawal notifications of *Toth* can be combined with the system of *Houh* by incorporating tunneling to the internet mobile switching center as taught by *Toth* (See claim 14, Supra) and then terminating the tunnel using the de-allocation message of *Toth* once an IP address has been withdrawn as taught by *Houh*. The motive to combine is to conserve resources by immediately terminating a tunnel that is no longer in use.

Houh fails to disclose a method wherein a handoff comprises measuring an intensity of a signal received from the Internet mobile station and when the measured intensity is lower than a predetermined reference intensity, requesting the Internet mobile switching center system for the handoff and when receiving an instruction to perform the handoff by selecting one of a plurality of adjacent Internet base station systems using the Internet mobile switching center system to manage the Internet mobile station. In the same field of endeavor, *Chu* discloses measuring an intensity of a signal received from the Internet mobile station and when the measured intensity is lower than a predetermined reference intensity, requesting the Internet

mobile switching center system for the handoff and when receiving an instruction to perform the handoff by selecting one of a plurality of adjacent Internet base station systems using the Internet mobile switching center system to manage the Internet mobile station (Paragraph 0044). (The mobile station sends connection quality information to the SRP/NCP. When the quality falls below a threshold, the SRP/NCP signals a handoff with a list of candidates to the NSP/Internet mobile switching center, which selects a candidate and initiates the handoff [Paragraph 0044]. Once the handoff is complete, the channel connection to the old base station is terminated [Paragraph 0044].)

Therefore, since *Chu* suggests the use of handovers, it would have been obvious to a person of ordinary skill in the art at the time of the invention to implement the handovers of *Chu* into the teachings of *Houh*. The handovers of *Chu* can me combined with the system of *Houh* by having the NCP of *Houh* hand over connections and terminate the channels associated with the old connections as taught by *Chu*. The motive to combine is to allow the mobile user to roam from one base station to another.

9. **Claim 16** is rejected under 35 U.S.C. 103(a) as being unpatentable over Houh (WIPO International Publication No. WO 00/24166) in view of *Toth*, et al., (US Patent No. 5,708,655) *Vitanen,* et al., (US Pre Grant Publication No. 2002/0128017 A1) The 3GPP TS 29.060, (GPRS Tunneling Protocol (GTP) across the Gn and Gp Interface, September 2002, The Third Generation Partnership Project, Pages 10 and 17-19) and Mobility Support in IPv6 (David Johnson, Mobility Support in IPv6, 13 June 1996, Internet Engineering Task Force, Pages 26-27) as applied to claim 13 above, and further in view of *Vitanen* (US Pre Grant Publication No. 2002/0128017 A1).

Regarding claim 16, Houh fails to disclose an internet home location register (HLR). In the same field of endeavor, *Toth* discloses an internet home location register (Column 7, Lines 5-13 – "the wireless host is registered in the home PLMN while roaming").

Therefore, since *Toth* discloses the use of a HLR, it would have been obvious to a person of ordinary skill in the art at the time of the invention to implement a HLR into the teachings of *Houh*. A HLR as taught by *Toth* can be implemented into the system of *Houh* by allowing the devices of *Houh* to roam as taught by *Hough* and implementing a HLR as taught by *Toth* to keep track of the mobile device/internet mobile station at its hole location. the motive to combine is to allow a mobile device to be located using the central HLR repository no matter where it roams to.

Houh fails to disclose transmitting the identification information of the Internet mobile station to an Internet home location register system to register the Internet mobile station. In the same filed of endeavor, *Vitanen* discloses transmitting the identification information of the Internet mobile station to an Internet home location register system to register the Internet mobile station (Paragraph 0021). (The SGSN checks and updates the user status in the home location register before allowing access to the packet data network [Paragraph 0021].)

Therefore, since *Virtanen* discloses the use of home location register (HLR) updates, it would have been obvious to a person of ordinary skill in the art at the time of the invention to implement the HLR updates of *Vitanen* into the teachings of *Houh*. The HLR updates of *Vitanen* can be combined with the teachings of *Houh* by implementing HLR updating as taught by *Vitanen* Through the transmission of HLR updates upon device registration. The motive to combine is provided by *Virtanen* and is to allow for checking the authorization of a user before allowing them to utilize a service (Paragraph 0021).

Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Christopher Crutchfield whose telephone number is (571) 270-3989. The examiner can normally be reached on Monday through Friday 7:30AM to 5:00PM EST.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Daniel Ryman can be reached on (571) 272-3152. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

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/Christopher Crutchfield/
Examiner, Art Unit 2619
8/28/2008

/Steven HD Nguyen/

Primary Examiner, Art Unit 2619